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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/601,320

06/19/2003

Ye-Kui Wang

944-001.111

6971

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04/02/2008

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EXAMINER

TRAN, PHILIP B

ART UNIT

PAPER NUMBER

2155

MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,320	<b>Applicant(s)</b> WANG, YE-KUI	
	<b>Examiner</b> Philip B. Tran	<b>Art Unit</b> 2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Notice to Applicants***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Srikantan et al (Hereafter, Srikantan), U.S. Pat. Application Pub. No. US 2001/0029548 A1 in view of Luthra et al (Hereafter, Luthra), U.S. Pat. No. 6,434,195.

Regarding claim 1, Srikantan teaches a signaling method for use in stream switching among a plurality of bitstreams (= streaming of media over the network) [see Figs. 1-2 and Abstract]. Srikantan does not explicitly teach providing in the bitstreams information indicative of a switching point so that said stream switching can be carried out based on the provided information, wherein the bitstreams containing video data indicative of a plurality of video frames for each bitstream, wherein the bitstreams comprise at least one switching point so as to allow switching from a first bitstream to a second bitstream at said switching point, and at least one recovery point which defines a first correct or approximately correct picture in output order in the second bitstream

decoded in a client subsequent to said stream switching, and wherein the recovery point is different from the switching point.

However, Luthra in the same field of media transmission endeavor, discloses providing in the bitstreams information indicative of the switching point so that said stream switching can be carried out based on the provided information, wherein the recovery point is different from the switching point [see Luthra, Figs. 1-2 and Abstract and Col. 2, Line 15 to Col. 3, Line 11 and Col. 4, Line 31 to Col. 5, Line 24]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Luthra into the teaching of Srikantan in order to efficiently progressively refresh bitstreams representing a series of video frames.

Regarding claim 2, Srikantan does not explicitly teach the signaling method of claim 1, wherein each video frame comprises one or more slices and the video frames contain at least one isolated region associated with said one or more slices in the second bitstream decoded subsequent to said stream switching, and wherein the provided information is further indicative of the isolated region. However, Luthra in the same field of media transmission endeavor, discloses each video frame comprises one or more slices and the video frames contain at least one isolated region associated with said one or more slices in the second bitstream decoded subsequent to said stream switching, and the provided information is indicative of the isolated region [see Luthra, Figs. 1-2 and Abstract]. It would have been obvious to one of ordinary skill in the art at

the time of the invention was made to incorporate the teaching of Luthra into the teaching of Srikantan for the same reason set forth above to claim 1.

Regarding claim 3, Srikantan further teaches the signaling method of claim 1, wherein the bitstreams are conveyed from a server device to a client device in a streaming network, and wherein said stream switching is initiated by the server device [see Figs. 1-2].

Regarding claim 4, Srikantan further teaches the signaling method of claim 1, wherein the bitstreams are conveyed from a server device to a client device in a streaming network, and wherein said stream switching is requested by the client device [see Figs. 1-2].

Regarding claim 5, Srikantan further teaches the signaling method of claim 1, wherein the signaling method is used in a transmission utilizing Real-time Transport Protocol (RTP) [see Paragraphs 0003 & 0027].

Regarding claim 6, Srikantan further teaches the signaling method of claim 5, wherein a Session Description Protocol (SDP) is used to convey information indicative of characteristics of the first and second bitstreams [see Paragraphs 0027 & 0064].

Regarding claim 7, Srikantan further teaches the signaling method of claim 1, wherein said stream switching is carried out in transmission of the video data based on transmission conditions between a server device and a client device in a streaming network [see Paragraphs 0035-0038].

Claim 8 is rejected under the same rationale set forth above to claim 1.

Claim 9 is rejected under the same rationale set forth above to claim 2.

Claims 10-12 are rejected under the same rationale set forth above to claims 5-7.

Claim 13 is rejected under the same rationale set forth above to claim 1. In addition, Srikantan further teaches at least one streaming client and at least one streaming server for transmitting one of the bitstreams to the streaming client so as to allow the streaming client to reconstruct the video frames based on the transmitted bitstream, wherein the streaming server comprises a stream selector for selecting the

first bitstream for transmission and for further selecting the second bitstream [see Srikantan, Figs. 1-2].

Claims 14-19 are rejected under the same rationale set forth above to claims 2-7.

Regarding claim 20, Srikantan does not explicitly teach the streaming system of claim 13, further characterized by a video encoder to convert a video input signal into the video data and means, responsive to the video data, for encoding the video data into the plurality of bitstreams. However, Luthra in the same field of media transmission endeavor, discloses a video encoder to convert a video input signal into the video data and means, responsive to the video data, for encoding the video data into the plurality of bitstreams [see Luthra, Figs. 1-2 and Abstract and Col. 2, Line 15 to Col. 3, Line 11 and Col. 4, Line 31 to Col. 5, Line 24]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Luthra into the teaching of Srikantan in order to efficiently progressively refresh bitstreams representing a series of video frames.

Claim 21 is rejected under the same rationale set forth above to claim 1.

Claim 22 is rejected under the same rationale set forth above to claim 2.

Claim 23 is rejected under the same rationale set forth above to claim 6.

Claim 24 is rejected under the same rationale set forth above to claim 7.

***Other References Cited***

4. The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

A) Chen et al, U.S. Pat. No. 7,046,910.

5. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

6. A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).



7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (571) 273-8300. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Philip B Tran/  
Primary Examiner, Art Unit 2155  
Mar 14, 2008

Serial Number: 10/601,320  
Art Unit: 2155

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Paper Dated 20080314